

Abstract

A bearing device mountable on a smaller bearing and allowing to be automatically lubricated for a long period, comprising an inner ring [(2)] and an outer ring [(1)] rotated relative to each other, cages and rolling elements [(3)] held by the cages which are disposed in an annular space between the inner and outer rings, a seal ring [(5)] disposed on both sides of the inner and outer rings, and a unit body [(7)] formed of a battery [(6)], a tank [(8)] for storing lubricant, and a pump [(10)] sucking and discharging the lubricant from the tank [(8)] which is disposed between the outer ring [(1)] and the inner ring [(2)] detachably from the seal ring [(5)], wherein the lubricant is discharged from the pump [(10)] into the annular space in which the rolling elements [(3)] are disposed and the discharged amount of the lubricant from the pump is controlled by a sensor and a control circuit, and the unit body [(7)] is formed detachable, whereby a lubrication unit installed in the bearing can be made compact and slim.